

Customer No.: 31561
Docket No.: 13129-US-PA
Application No.: 10/711,835

AMENDMENT

In The Claims:

1. (currently amended) A method of fabricating a gate, comprising the steps of:
providing a substrate;
forming a patterned mask layer over the substrate, wherein the patterned mask layer exposes an area on the substrate for forming the gate;
~~forming a gate on the substrate within the exposed area; and~~
forming a metallic layer over the mask layer and inside the exposed area such that the metallic layer formed over the mask layer is apart from the metallic layer formed inside the exposed area;
forming an oxidation-resistant layer on the metallic layer, wherein the oxidation-resistant layer formed over the mask layer is apart from the oxidation-resistant layer formed inside the exposed area; and
removing the mask layer, wherein the metallic layer and the oxidation-resistant layer formed over the mask layer are removed at the same time and the metallic layer and the oxidation-resistant layer formed inside the exposed area is remained so as to form the gate.
- 2-3 (canceled).
4. (currently amended) The method of claim 3~~1~~, wherein the oxidation-resistant layer is selected from a group consisting of an alloy of metals and a metal silicide compound.

Customer No.: 31561
Docket No.: 13129-US-PA
Application No.: 10/711,835

5. (original) The method of claim 1, wherein the step of forming the gate comprises performing a physical vapor deposition process.

6. (original) The method of claim 1, wherein the mask layer comprises a photoresist layer.

7. (currently amended) A method of fabricating a pixel unit, comprising the steps of:

providing a substrate;

forming a patterned mask layer over the substrate, wherein the patterned mask layer exposes an area on the substrate for forming the gate;

~~forming a gate on the substrate within the exposed area;~~

forming a metallic layer over the mask layer and inside the exposed area such that the metallic layer formed over the mask layer is apart from the metallic layer formed inside the exposed area;

forming an oxidation-resistant layer on the metallic layer, wherein the oxidation-resistant layer formed over the mask layer is apart from the oxidation-resistant layer formed inside the exposed area;

removing the mask layer, wherein the metallic layer and the oxidation-resistant layer formed over the mask layer are removed at the same time and the metallic layer and the oxidation-resistant layer formed inside the exposed area is remained so as to form the gate;

forming an insulating layer over the substrate to cover the gate;

forming a channel layer over the insulating layer above the gate;

forming a source and a drain over the channel layer;

Customer No.: 31561
Docket No.: 13129-US-PA
Application No.: 10/711,835

forming a passivation layer over the substrate, wherein the passivation layer has an opening that exposes a portion of the drain; and

forming a pixel electrode over the passivation layer such that the pixel electrode is electrically connected to the drain via the opening.

8-9. (canceled)

10. (currently amended) The method of claim 97, wherein the oxidation-resistant layer is selected from a group consisting of an alloy of metals and a metal silicide compound.

11. (original) The method of claim 7, wherein the step of forming the gate comprises performing a physical vapor deposition process.

12. (original) The method of claim 7, wherein the mask layer comprises a photoresist layer.

13. (currently amended) A method of fabricating a thin film transistor, comprising the steps of:

providing a substrate;

forming a patterned mask layer over the substrate, wherein the mask layer exposes an area on the substrate for forming the gate;

~~forming a gate within the exposed area;~~

forming a metallic layer over the mask layer and inside the exposed area such that the metallic layer formed over the mask layer is apart from the metallic layer formed inside the exposed area;

Customer No.: 31561
Docket No.: 13129-US-PA
Application No.: 10/711,835

forming an oxidation-resistant layer on the metallic layer, wherein the oxidation-resistant layer formed over the mask layer is apart from the oxidation-resistant layer formed inside the exposed area;

removing the mask layer, wherein the metallic layer and the oxidation-resistant layer formed over the mask layer are removed at the same time and the metallic layer and the oxidation-resistant layer formed inside the exposed area is remained so as to form the gate;

forming an insulating layer over the substrate to cover the gate;

forming a channel layer over the insulating layer above the gate; and

forming a source and a drain over the channel layer.

14-15. (canceled)

16. (currently amended) The method of claim ~~15~~13, wherein the oxidation-resistant layer is selected from a group consisting of an alloy of metals and a metal silicide compound.

17. (original) The method of claim 13, wherein the step of forming the gate comprises performing a physical vapor deposition process.

18. (original) The method of claim 13, wherein the mask layer comprises a photoresist layer.